## **ABSTRACT**

A clamp for a feedwater sparger end bracket assembly in a boiling water reactor vessel comprises first and second clamp members disposed in opposition over a feedwater sparger end bracket assembly and a connector connecting the first and second clamp members to one another over the feedwater sparger end bracket assembly. Each clamp member has a compartment for receiving a portion of the feedwater sparger end bracket assembly, and the clamp constrains the feedwater sparger end bracket assembly against separation in first, second and third directions. Each clamp member includes shoulders and tabs which place the clamp and the feedwater sparger in equilibrium. A method of preventing separation of a feedwater sparger end bracket assembly comprises installing first and second clamp members of a clamp over a feedwater sparger end bracket assembly in opposition to one another, and leaving the clamp in place to constrain the feedwater sparger end bracket assembly against separation in first, second and third directions.